

REMARKS**I. STATUS OF THE CLAIMS**

Claims 54, 55, 60 – 65, 69, 76, 77, 79, 81, 82, 86, and 91 – 129 are pending in this patent application. Claims 1 – 53, 56 – 59, 66 – 68, 70 – 75, 78, 80, 83 -84, and 87 – 90 were previously cancelled.

Claims 63 and 105 have been amended to correct a typographical error.

Claims 122 – 124 have been amended to correct dependency.

No new matter has been added.

II. DOUBLE PATENTING REJECTIONS

Claims 54, 55, 64, and 76 have been rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claim 4 of US 7,279,451.

Although not necessarily agreeing with the Office's conclusions, applicants will consider filing a terminal disclaimer directed to the abovementioned patent if the claimed subject matter is otherwise allowable. Such a terminal disclaimer will render this obviousness-type double patenting rejection moot.

III. OBVIOUSNESS REJECTIONS**A. Rejections over Smits, Aoyama, and optionally Nimitz.**

Claims 54, 55, 60 – 64, 69, 76, 77, 79, 81, 82, 85, 91 – 93, 95, 97 – 107, 109 – 115, 117 – 119, 121, and 123 – 129 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over US 4,945,119 (Smits) in view of US 5,679,875 (Aoyama). Claims 55, 60 – 62, 65, 69, 76, 77, 79, 82, 85, 86, 93 – 99, 101, 108 – 112,

114, 116, 120, and 122 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Smits in view of Aoyama and further in view of US 5,674,451 (Nimitz).

The Office recognizes that the pending claims are patentable over Smits in view of Nimitz (see Interview Summary of 10/30/07). Notwithstanding this conclusion, the Office presently alleges that the pending claims are obvious over one or both of these references in view of Aoyama. With respect to claims 100 – 129, the Office alleges that it would have been obvious to one skilled in the art at the time of the invention to modify Smit's disclosure of blowing agents that comprise an alkane with a polyol, flame retardant, or stabilizer, by substituting the alkane with 1,1,1,2,3-pentafluoropropene (HFO-1225ye) as taught by Aoyama. With respect to the pending claims numbered from 54 – 99, the Office alleges that 1,1,1,2-tetrafluoropropene (HFO-1234yf) is a mere homolog of HFO-1225ye and, therefore, one skilled in the art would expect for these two compounds to have similar properties.

Contrary to the Office's allegations, the claimed compositions are not merely a substitution of an alkane for a pentafluoropropene, and thus these allegations are neither consistent with the Supreme Court's recent decision in *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007) (stating that "the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results", and by corollary that combinations that do not yield predictable results are nonobvious) nor with MPEP 2143.

MPEP 2143(B) states that "the rationale to support a conclusion that the claim would have been obvious is that the substitution of one known element for another yields **predictable** results to one of ordinary skill in the art. If [such a] finding cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art." (emphasis added) Thus, a claimed

invention is not obvious where prior art elements are combined according to known methods to yield **unpredictable** results.

Here, Applicants have found that exceptionally surprising and unexpectedly beneficial results are obtainable from claimed combination of compounds. For at least this reason that the claimed compositions yields unpredictable and superior results relative to the compositions of the cited references, the claimed invention is nonobvious over these references. The rejection under § 103(a) is, therefore, respectfully traversed.

Concurrently with this Reply and RCE, Applicants are filing a petition under 37 C.F.R. 1.103(c) to suspend action on this application to evaluate additional data supporting the above-mentioned unexpected results.

B. Rejections over Daiken

Claims 54, 55, 60, 69, 99 – 102, 109 – 112, and 125 – 129 have also been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over JP 04110388 (Daiken). Here, the Office alleges that Daiken teaches refrigerants and heat transfer agents comprising 1,1,1,2 tetrafluoropropene. However, Applicants respectfully disagree with the Office's reading of Daiken. Applicants submit that Daiken fails to disclose or even suggest the highly beneficial properties of certain compositions disclosed in the present application. Furthermore, the beneficial result achieved from those compositions are unexpected and surprising, especially in certain applications described in accordance with the present disclosure. For at least this reason, the Office's obviousness rejection over Daiken is respectfully traversed. As mentioned above, concurrently with this Reply and RCE, Applicants are filing a petition under 37 C.F.R. 1.103(c) to suspend action on this application to evaluate additional data supporting the above-mentioned unexpected results.

V. **CONCLUSION**

Should the Examiner have any questions concerning this communication, she is respectfully invited to contact the undersigned at her convenience by telephone.

Respectfully submitted,

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